6JF6

Beam Power Tube

NOVAR TYPE

For Horizontal-Deflection-Amplifier Service in Low-B+, Black-and-White TV Receivers

ELECTRICAL

Heater Characteristics and Ratings

Voltage (AC or DC)	6.3 ± 0.6	V
Current at 6.3 V	1.600	A
Maximum heater-cathode voltage:		
Heater negative with respect to cathode:		
Peak	200	V
Heater positive with respect to cathode:		
Peak	200	V
DC component	100	V

Direct Interelectrode Capacitances (Approx.)[a]

Grid No.1 to plate	1.2	pF
Input: G1 to (K, G3, G2, H)	22.0	pF
Output: P to (K, G3, G2, H)	9.0	pF

MECHANICAL

Operating Position	Any
Type of Cathode	Coated Unipotential
Maximum Overall Length	3.550 in
Seated Length	2.910 to 3.170 in
Diameter	1.438 to 1.562 in
Dimensional Outline	See *General Section*
Bulb	T12
Cap	Skirted Miniature (JEDEC No.C1-2 or C1-3)
Base	Large-Button Novar 9-Pin with Exhaust Tip (JEDEC No.E9-88)

TERMINAL DIAGRAM (Bottom View)

Pin 1 - Grid No.2
Pin 2 - Grid No.1
Pin 3 - Cathode
Pin 4 - Heater
Pin 5 - Heater
Pin 6 - Grid No.1
Pin 7 - Grid No.2
Pin 8 - Grid No.3
Pin 9 - Do Not Use
Cap - Plate

CHARACTERISTICS

Peak Positive-Pulse Plate Voltage[b]	6500	-	-	V
Plate Voltage	-	50	130	V
Grid No.3	Connected to cathode at socket			
Grid-No.2 Voltage	125	125	125	V
Grid-No.1 Voltage	-	0	-20	V
Plate Resistance (Approx.)	-	-	12000	Ω

Transconductance	-	-	10000	μmho
Plate Current	-	525[c]	80	mA
Grid-No.2 Current		32[c]	2.5	mA
Grid-No.1 Voltage (Approx.) For plate mA = 1	-125	-	-40	V
Triode Amplification Factor (Triode connection: grid No.2 connected to plate at socket. Plate volts = grid-No.2 volts = 125; grid-No.1 volts = -20)	-	-	4.1	

HORIZONTAL-DEFLECTION AMPLIFIER

Maximum Ratings, Design-Maximum Values

For operation in a 525-line, 30-frame system

DC Plate Supply Voltage	770	V
Peak Positive-Pulse Plate Voltage[d]	6500	V
Peak Negative-Pulse Plate Voltage	1500	V
DC Grid-No.3 Voltage[e]	100	V
DC Grid-No.2 (Screen-Grid) Voltage	220	V
Peak Negative-Pulse Grid-No.1 (Control-Grid) Voltage	330	V
Cathode Current		
Peak	950	mA
Average	275	mA
Grid-No.2 Input	3.5	W
Plate Dissipation[f]	17	W
Bulb Temperature At hottest point on bulb surface	240	°C

MAXIMUM CIRCUIT VALUES

Grid-No.1-Circuit Resistance		
For grid-resistor-bias operation[f]	0.47	MΩ
For plate-pulsed operation (Horizontal-deflection circuits only)	10	MΩ

[a] Without external shield.

[b] Under conditions shown in footnote[d].

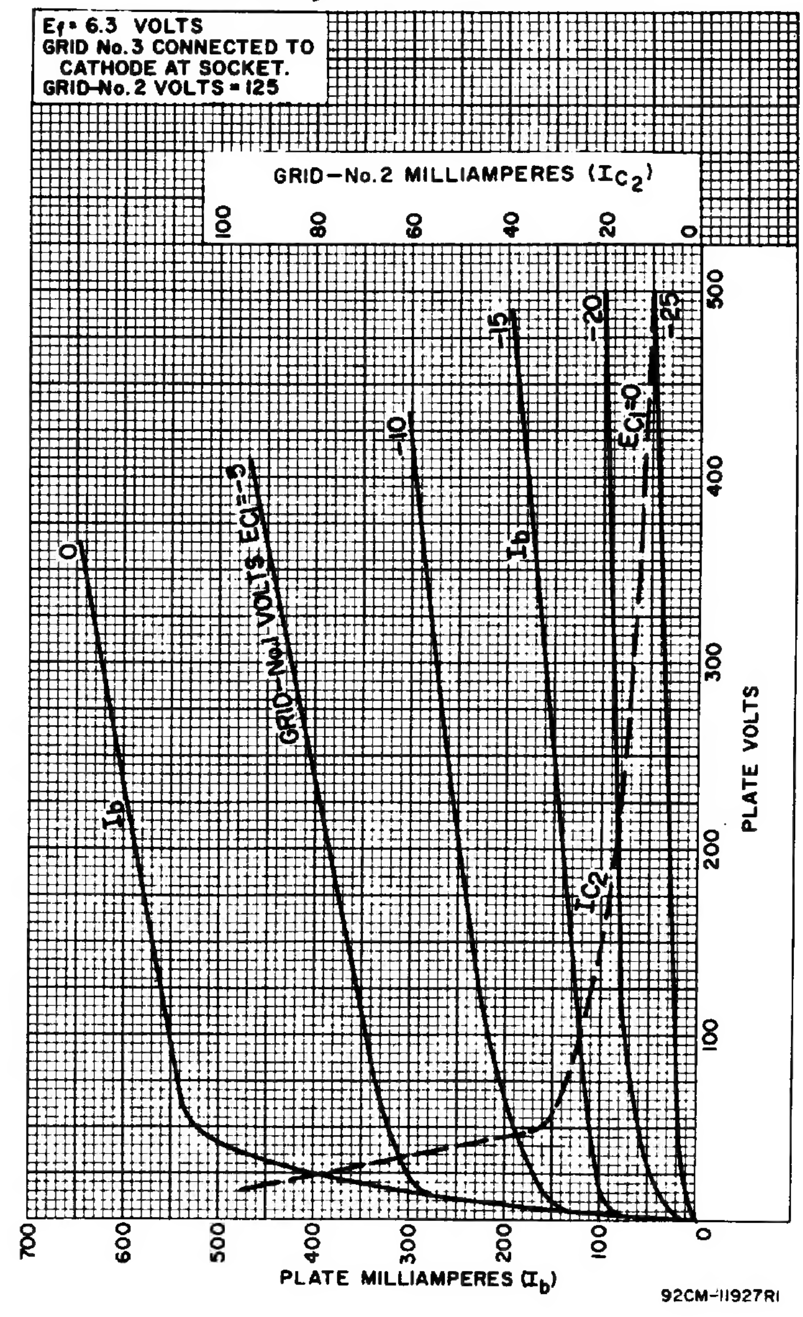
[c] This value can be measured by a method involving a recurrent waveform such that the maximum ratings of the tube will not be exceeded.

[d] This rating is applicable where the duration of the voltage pulse does not exceed 15 per cent of one horizontal scanning cycle. In a 525-line, 30-frame sysyem, 15 per cent of one horizontal scanning cycle is 10 microseconds.

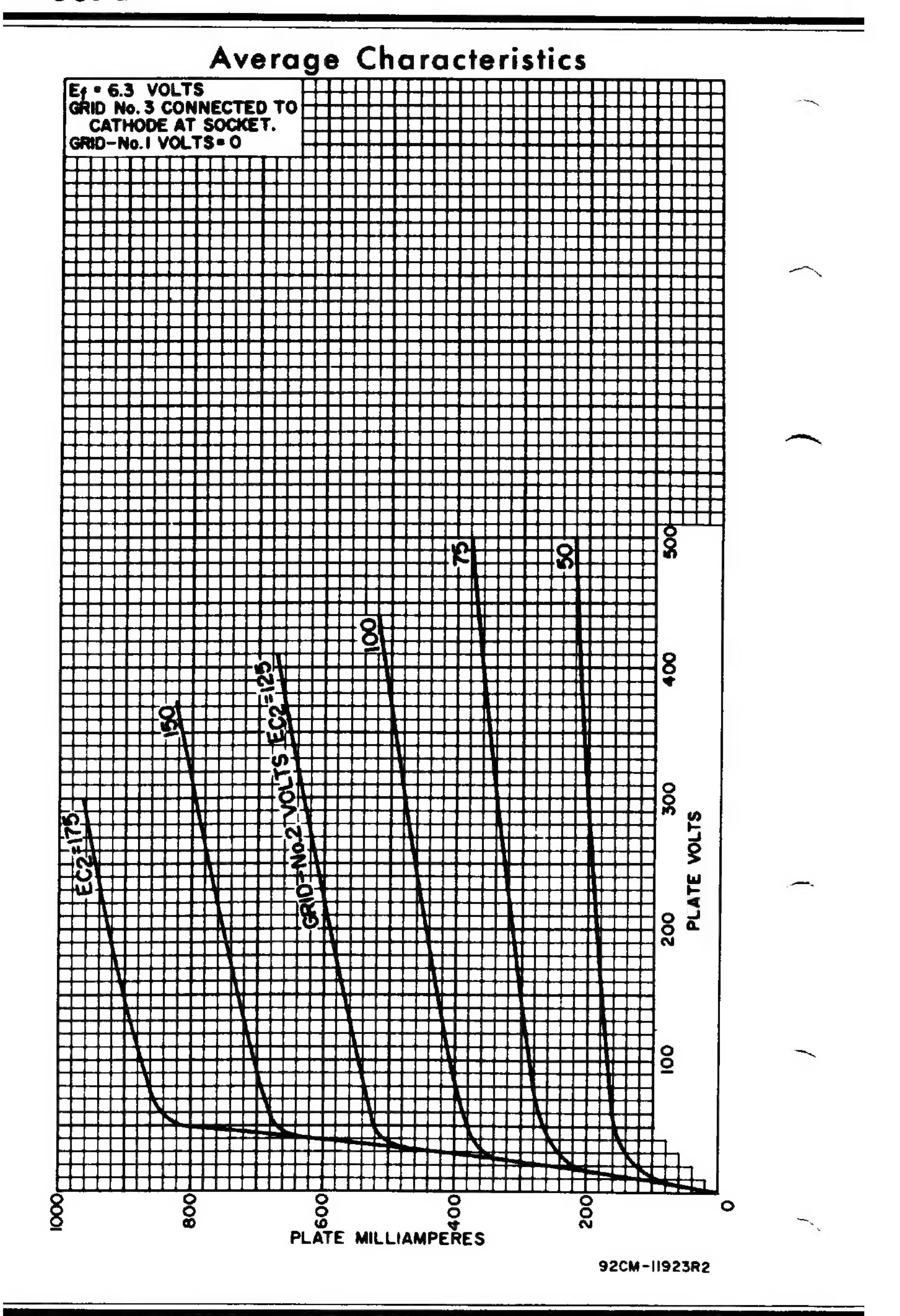
[e] In horizontal-deflection-amplifier service, a positive voltage may be applied to grid No.3 to reduce interference from "snivets" which may occur in both vhf and uhf television receivers. A typical value for this voltage is 50 volts.

[f] An adequate bias resistor or other means is required to protect the tube in the absence of excitation.

Average Characteristics



Average Characteristics



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Electronic Components and Devices Harrison, N. J.